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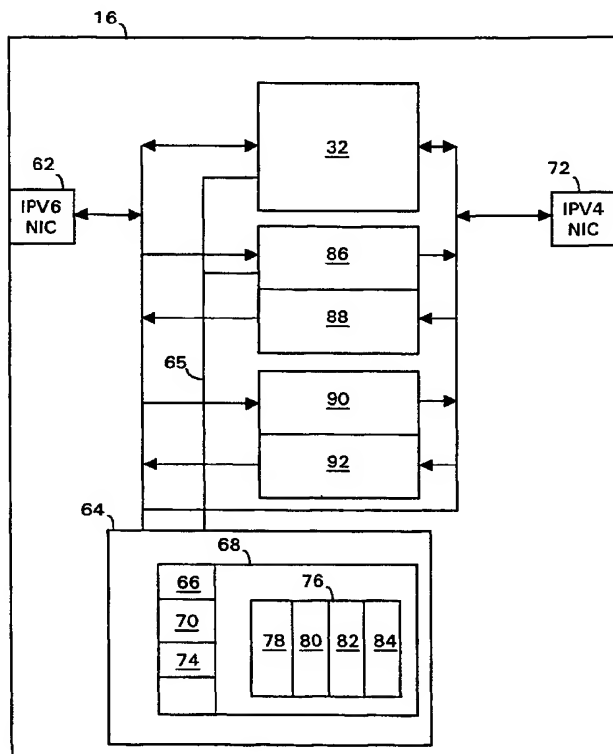
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(54) Title: PACKET NETWORK INTERFACING



(57) Abstract: A method of interfacing, and an interface for use, between two IPv6 domains separated by an IPv4 domain. The interface comprises a protocol converter, an encapsulator/un-encapsulator and a controller. When an IPv6 source wishes to send to a named destination in the other IPv6 domain, the source sends a normal IPv6 address request to its local DNS server, which relays it to an IPv6 name server in the other IPv6 domain. The response message, containing the true IPv6 address of the destination is received at the remote interface, which appends to the resulting protocol converted DNS response message a first additional record containing the true IPv6 address, and a second additional record containing the IPv4 address of that interface. Upon receipt at the other interface, the additional records are stripped off, their contents stored in an entry of a table, and the true IPv6 address written into the address record of the resulting IPv6 DNS response message. When the interface receives a packet from an IPv6 host, it checks whether the destination address matches an entry of its table, and if so sends the packet to the encapsulator together with the IPv4 address of the remote interface. The remote interface extracts the source address and the address of the encapsulating interface and stores these in an entry in its corresponding table for use in encapsulating return packets to the source. If, however, the destination address is recognised as being of IPv4-compatible or IPv4-mapped format, the packet is sent to a protocol converter.



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INTERNATIONAL SEARCH REPORT

Int. .tional Application No

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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H04L12/56 H04L12/46

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, INSPEC, IBM-TDB

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	<p>EP 0 840 482 A (HITACHI LTD) 6 May 1998 (1998-05-06)</p> <p>page 2, left-hand column, line 1 -right-hand column, line 45 column 5, line 13 - line 18 column 6, line 8 -column 7, line 48 --- -/--</p>	<p>1-3,7,8, 11-14, 17,18 4-6,9, 10,15,16</p>

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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- *A* document defining the general state of the art which is not considered to be of particular relevance
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>LEE D C ET AL: "THE NEXT GENERATION OF THE INTERNET: ASPECTS OF THE INTERNET PROTOCOL VERSION 6" IEEE NETWORK, IEEE INC. NEW YORK, US, vol. 12, no. 1, 1998, pages 28-33, XP000739805 ISSN: 0890-8044 page 31, right-hand column, line 11 - line 31 page 32, left-hand column, line 35 -right-hand column, line 39 -----</p>	1-18

INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0840482 A	06-05-1998	JP 10136052 A	22-05-1998
		JP 11055319 A	26-02-1999
		US 6118784 A	12-09-2000
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